

PHENIX WEEKLY PLANNING



9/10/2009

Don Lynch

Completed Tasks

Task

- Start of shutdown tasks
Erected scaffolds in stations 1, 2 and 3 of MMS
Tools for RPC Factory: tilt table and burn in test stand
Designed and fabricated RPC installation components, fixtures
Procedures and work permits
Designed, fabricated and assembled PC1 repair fixture
Installed station 1 MuTrigger FEE upgrades
Repaired faulty DC FEMs
Removed HBD East for repairs
Massive prep for installation of RPC3 North
- work platforms and acces above MuID north
 - cleared and organized gap 5 north
 - test pours for gap 5 grouting
 - test lifts for base and half octants (still in progress)
 - presurvey of all half octants
 - survey of wall mount positions for installation of half octants
 - new lighting for RPC3 N tunnel area
 - removal of shielding, vapor barrier and crystal palace
 - rack prep

This Week 9/8-9/11

TECHNICAL SUPPORT NOON

Task

Start Date

End Date

Assemble HV, exper. gas and N2 gas distribution and install tent	Done	Done
MuTr Rack 2 troubleshooting	Done	Done
Survey tapped holes on MuID5 steel and survey east and west RPC3 N support bases	Done	Done
Get Full Pressure Electronic Cooling Water Restored	Done	Done
Move DC on EC to access PC1 east	8/31	9/10
Disassemble DC/PC1 cables & piping	In Progress	9/10
Install Station 1 MuTrigger FEE air & water and test	In Progress	9/11
Simulated RPC installation at RPC Factory (practice/tests) test all installation parts: base, locking/install, survey, cradle	In Progress	9/11
Test and commission RPC3N lifting fixtures at factory	7/15	9/11
Move MuID plumbing rack on pedestal away From gap 5	In Progress	9/18
Drill and tap MuID gap 5 steel top and north	In Progress	9/18
MuTr decapacitations & MuTr FEE trouble-Shooting in MMS Sta 1&3	In Progress	10/15
Install MuTrigger FEE station 2/3 FEE's & Electronics & connect cables	In Progress	9/25
Prep RPC3 N racks for installation	In Progress	9/30
Install MuTrigger FEE station 2/3 air & water plumbing and test	9/14	10/9
Remove failed PC1 east module	9/10	9/14
Install spare PC1 east module	9/10	9/14

9/10/2009



PC1 East Repair Support Fixture

9/10/2009

Next Week 9/14-9/18

Task

Start Date End Date

TECHNICAL SUPPORT 2009

Test PC1 spare and verify operation	9/14	9/17
Remove RPC prototype absorber and support structure	9/15	9/15
Analyze and test EC dumbwaiter	In Progress	9/18
Move DC on EC back to normal position	9/18	9/18
Install MuTrigger FEE station 2/3 FEE's & Electronics & connect cables	In Progress	9/25
Remove station 1 south scaffolding	9/21	9/25
Reconnect cables and piping on DC and PC1 East	9/21	9/25
Final verification tests on PC1 east repair	9/28	9/30
Prep RPC3 N racks for installation	In Progress	9/30
Install new gap5 N cable & pipe supports, cables and piping and leak test piping	In progress	9/30
Install MuTrigger FEE station 2/3 air & water plumbing and test MuTr decapacitations & MuTr FEE trouble-Shooting in MMS Sta 1&3	9/14	10/9
	In Progress	10/15
MuTr HV and FEE test and evaluation as MuTrigger FEE's & RPC's are installed	In progress	11/30

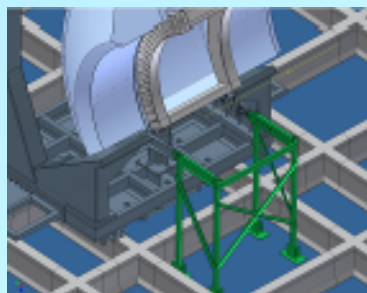
Tasks with slipped starting dates

Task	Start Date	End Date
Plan and install 2 new PHENIX gas pad expansion pads	In progress	9/30
Vendor install Ar dewar & vaporizer	In progress	9/30
Install rails and fences on gas pad	In progress	9/30
Install RPC3 N support base & grout	In progress	9/18
Install Station 3 N pitch control (unistrut rails) on pedestal and east and west gap 5 north walls and attach to support bases (tall column)	In progress	9/18
First $\frac{1}{2}$ octant ready for installation	9/15	9/15
Install RPC3 N $\frac{1}{2}$ Octants (16 days)	9/15	10/30



Tasks for the remainder of September

Task	Start Date	End Date
MuTr HV and FEE test and evaluation as MuTrigger FEE's & RPC's are installed	In progress	11/30
Install new gap5 N cable & pipe supports, cables and piping and leak test piping	In progress	9/30
Remove station 1 south scaffolding	9/21	9/25
Test PC1 spare and verify operation	9/14	9/17
Move DC on EC back to normal position	9/18	9/18
Reconnect cables and piping on DC and PC1 East	9/21	9/25
Final verification tests on PC1 east repair	9/28	9/30
Remove RPC prototype absorber and support structure	9/15	9/15



9/10/2009

Other Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
Design supports for Beampipe upgrade	7/6	11/30
Fan Tray replacements (as time permits)	7/8	11/30
DCM rack supply & Return plumbing	10/5	10/16
DCM rack internal plumbing	10/19	10/30
Design support for FOCal	7/6	11/30
Design support for FVTX	7/6	11/30
Design & Fabrication support for VTX	7/6	11/30
Test/replace rack transient suppression	7/20	12/1
UPS feeds for GTM and GL1 racks	7/20	12/1
Cordless phones in tunnel	7/20	12/1
Individual relays on all HV supplies	7/20	12/1
SF6 alarm to MCR?	7/20	12/1
More volts to EMCAL FEM's?	7/20	12/1
Revisit LV systemization/standardization of controls, etc.	7/20	12/1
Correct wiring of the DCM crates enables	7/20	12/1
Replace ECB1&2 (ADAM5000s) with a single new ADAM5000E	7/20	12/1
Replacement OPC server computers	7/20	12/1
Replace old PCI type RS485 interface boards with USB-Fiber and Fiber-RS485 system	7/20	12/1



Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
Add single-button ON/OFF controls to some LV GUIs	7/20	12/1
Determine optimal baud rate for EC North RMC	7/20	12/1
Remove the temporary FlatPAC in SMT4 and install two new MegaPACs	7/20	12/1
Install LV Dist modules in MuTrigger S.	7/20	12/1
Remove temporary MegaPAC in sRPC1 rack and install new full MegaPAC and finish controls for it	7/20	12/1
VTX/FVTX LV Dist system evaluation	7/20	12/1
Prep for production of up to 39 boards in 4 crates (VTX/FVTX)	7/20	12/1
VTX/FVTX cooling system interlock design	7/20	12/1
Evaluate possible design for 4x1 GL1 L1 triggers	7/20	12/1
Test direct ethernet implementaion on Maszi's new HV control interface board	7/20	12/1
DCM rack electric prep	8/3	10/30
Rack room re-organization	9/1	11/30
CM Power Upgrade	9/1	11/30

9/10/2009



PHENIX









9/10/2009

Expected IR Configuration During Shutdown '09

- Now-10/1 MMS south, CM in run position, EC in AH
WC in west position (against wall), scaffolding
in station 1 and station 2/3 south
- 9/25-11/10 MMS, CM & WC positions TBD, EC in AH
- 11/10-12/1 MMS & CM in run position, EC and WC can be
moved east west ~3 ft

These dates are approximate and subject to change

TECHNICAL SUPPORT NOON

October Schedule

Task

Start Date End Date

TECHNICAL SUPPORT 2009

Final leak test new Ar dewar/vaporizer and Closeout job

8/28

10/4

Troubleshoot MUTr decaps in MMN

7/27

10/15

Troubleshoot MUTrigger FEE's in MMN

7/27

10/15

Close MMN Hatch and closeout WP

9/1

10/15

Remove MMS Sta 2/3 scaffolding

10/12

10/23

Reinstall MMS lampshades (2 days)

10/26

10/30

Install Empties racks on gas pad

9/30

10/4

Disassemble and store PC1 east repair fixture

10/1

10/2

Install 2 RPC3 N racks (1/2 day)

9/8

10/30

Install rack components in RPC3 N racks

9/21

10/31

Attach cables to RPC3 N racks and to Detector $\frac{1}{2}$ octants

10/1

10/30

Install new PHENIX north tunnel thermal/vapor barrier replacing crystal palace (1 week)

10/1

10/30

Commission RPC3 N racks and detectors

10/12

10/30

November Schedule

Task

Start Date End Date

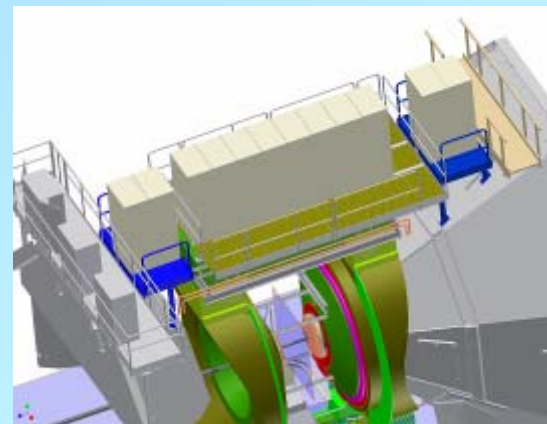
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- Install heaters and thermostat(s) for RPC3N thermal control 11/2 11/6
- Reinstall PHENIX North tunnel shielding (3 days) 11/2 11/6
- Cooldown for Run 10 Starts 11/7 11/7
- Move MuID Collars to IR 11/7 11/7
- Disconnect electric & Fiber in EC 11/2 11/7
- Remove ladder & dumb waiter from EC & Fold up EC platforms in AH (1 day) 11/9 11/10
- Veterans Day Holiday - no work 11/11 11/11
- Remove IR Floor plates and move 12 ton cart to AH 11/12 11/12
- Move EC to IR 11/12 11/13
- Replace EC water hoses below EC 11/14 11/20
- Reconnect electric and fiber to EC 11/16 11/20
- Reinstall ladder & dumb waiter on EC & Fold down EC platforms in IR (1 day) 11/16 11/20
- Pink sheets, white sheets, blue sheets 11/16 12/1
- Move MMS north, Install MuID Collars 11/23 11/25
- Assemble shield wall base and wall in AH 11/23 11/30
- Thanksgiving Holiday - no work 11/26 11/27
- Roll in shield wall 11/30 11/30
- Start Run 10, All shutdown activities completed 12/1 12/1



Other potential work this shutdown:

1. Prep Bridge for future upgrades
(if time permits)



DC East Repair Proposal

The DC has several broken wire inside that short quite a large number of good wires and reduce available acceptance of the detector. Usually wires are removed right before the run since new broken wires can appear at any time, most often it happens when electronics is put in 24/7 operation. However, several wires broken on the very top of the DCE are not reachable from the CM lift table or otherwise when EC is in IR.

The repair itself is going to be a standard procedure that involves: 1) light cleaning and cutting of window; 2) removal of broken wires; 3) sealing of the chamber.

To perform the repair a few things are needed:

- 1) Operational DC-PC1 HV system to check the current state of the detector and try to locate broken wires before opening the detector.
- 2) Some support to have an access to the very top of the DCE. One of the possibilities is a man lift (all necessary exams must be taken).
- 3) Some support from the gas mixing house to check that the detector is sealed properly after the repair.

All instruments which are required for the repair are at Stony Brook.

Repair must be performed before October, 25 when DC experts leave to return to Russia.

More work to be scheduled

Purchase and install 2 AC's in
Phenix Gas Mixing House

Suggested model ;

Mcmaster part number: 1817K89
19.5 K btu

Per R. Pisani



2009 Building Maintenance Issues

TECHNICAL SUPPORT NOON

- Roof leaks in utility bathroom at northwest corner behind tech offices and over door between rack room and assembly hall.: *Roof Repairs underway*
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- Improved Rack Room AC performance: *New AC on order*
- Icy conditions at mixing house north stairs: *See next item*
- Mixing House loose board?: *See next item*
- General maintenance for Trailer Offices and Gas Mixing House stairs, ramps and siding, gutters, etc. (cleaning and repairing worn/rotted wood): *Carter has placed work orders*



1. Scaffold Inspector training being given at BNL by Steve Kane
9/21 & 9/24
2. DOE Safeguards and security audit Sep. 14-18.
 - Wear your badge at all times
 - Secure valuables when not in use
 - Secure sensitive information
 - Obey signs barricades, etc.
 - Report suspicious activity to police (x2222 or 911)
 - Report cyber security problems to response team at x8484

Where To Find PHENIX Engineering Info



It's been a good week of progress at PHENIX, The Beatles remastered catalog released and the Beatles Rock Band released...Who could ask for more.

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

